

NAMS Regional Symposium on Sleep Medicine

Speaker : Dr. Naveen Dutt

OBSTRUCTIVE SLEEP APNEA AND QUALITY OF LIFE

SYNOPSIS

Obstructive sleep apnea (OSA) is characterized by the occurrence of daytime sleepiness, loud snoring, breathing interruptions, or awakenings due to gasping or choking in the presence of at least five obstructive respiratory events (apneas, hypopneas or respiratory effort related arousals) per hour of sleep. The presence of 15 or more obstructive respiratory events per hour of sleep in the absence of sleep related symptoms is also sufficient for the diagnosis of OSA due to the greater association of this severity of obstruction with important consequences such as increased cardiovascular disease risk. Prevalence surveys have estimated that about 4% of the middle-aged men and 2% of the middle-aged women are afflicted by OSA in developed countries(1). Indian prevalence studies estimated disease prevalence rates of 3.5-13.7% (4.4-19.5% in males and 2.5-7.4% in females) prevalence of OSAS in India is 1.7-3.6% (2.4-7.5% in males and 1-2.1% in females).

The daytime sleepiness is the most common manifestation of OSA. However, other common daytime effects include irritability, decreased concentration, memory impairment, decreased energy and depressive symptom. The most catastrophic result of excessive daytime sleepiness (EDS) is falling asleep behind the wheel and causing fatal automobile accidents. Many studies have indicated an association between sleep apnea and cardiovascular/cerebrovascular related morbidity and mortality. It has been associated with the hypertension, coronary artery disease, congestive heart failure, arrhythmias and stroke. It has also been associated with an increased mortality.

Recently, the studies have confirmed that the impact of OSA on patient's quality of life (QOL) is rather more widespread than EDS, increased risk of cerebrovascular/cardiovascular events and other common features mentioned above. Certainly, there are many other domains of life, which remain unexplored in the sleep laboratory. In such cases, Flemons and Lacasse *et al.* have outlined 4 such key domains of

health related quality of life (HRQoL) viz. somatic sensation, physical function, emotional state, and social interaction(2). As the measurements of physiological parameters alone cannot be taken surrogate markers of HRQoL this emphasizes the need to measure QOL directly.

Diverse self-reported instruments have been used to assess resulting impairment like medical outcomes study survey, Short-form 36 health survey Questionnaire (SF-36), Satisfaction with Life Scale, Nottingham Health Profile, General health questionnaire-28(3).

Question mark on the ability of generic questionnaire to detect subtle effects of disease on QOL and effects on QOL brought about by various treatment modalities led to the development of disease specific questionnaire for OSA like Calgary sleep apnea quality of life index (SAQLI) functional outcome of sleepiness questionnaire (FOSQ), and OSA Patient-Oriented Severity Index(4)(5). These OSA specific questionnaires are being used increasingly in the newer studies and gradually replacing the generic scales.

It is essential to study the overall effect of OSA on human life so that a complete therapy can be planned addressing the specific needs of the patient. Any treatment modality chosen on the basis of derangements in the physiological parameters only is unlikely to be complete as these parameters may not be the true representative of the extent of sufferings of the OSA patients.

SUGGESTED READING

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4. Weaver TE, Laizner AM, Evans LK, Maislin G, Chugh DK, Lyon K, et al (1997). An instrument to measure functional status outcomes for disorders of excessive sleepiness. *Sleep* **20**:835–43.
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